Claims

1. A method for diagnosing the efficacy of xenotypic antibody-mediated immunotherapy comprising measuring the level of an antibody produced by a patient that specifically binds to a a xenotypic antibody after administration of the xenotypic antibody to the patient, wherein an increase in the level of the antibody produced by the patient after the administration of the xenotypic antibody relative to the level of antibody produced by the patient prior to the administration of the xenotypic antibody is indicative of a favorable diagnosis of efficacy.

2. The method of claim 1, wherein the level of human anti-xenotypic antibody is increased by more than two-fold relative to the level present in the patient prior to the administration of the xenotypic antibody.

3. The method of claim 1, wherein the xenotypic antibody is a murine monoclonal antibody.

4. The method of claim 1, wherein the xenotypic antibody is selected from the an antibody that specifically binds to an antigen, wherein the antigen is selected from the group consisting of CA125, MUC-1, and prostate specific antigen.

5. The method of claim 1, wherein the level of human anti-xenotypic antibody produced by a patient after administration of the xenotypic antibody to the patient is greater than or equal to 5,000 ng antibody/ml blood.

6. The method of claim 1, wherein the level of human anti-xenotypic antibody produced by a patient after administration of the xenotypic antibody to the patient is

sufficient for the patient to produce an antibody that can compete with the xenotypic antibody for binding to its target antigen.

7. The method of claim 1, wherein the favorable diagnosis of efficacy increases the time to disease progression.

8. The method of claim 1, wherein the favorable diagnosis of efficacy increases the likelihood of survival of the patient.

9. The method of claim 1, wherein the patient is suffering from a disease selected from the group consisting of cancer, inflammatory disease, bacterial infection, parasitic infection, and viral infection.

10. The method of claim 1, wherein the patient is suffering from cancer.

11. The method of claim 1, wherein the patient is human.

12. A method for diagnosing the efficacy of xenotypic antibody-mediated immunotherapy comprising measuring the level of an anti-idiotype antibody produced by a patient that specifically binds to a a xenotypic antibody after administration of the xenotypic antibody to the patient, wherein an increase in the level of the anti-idiotype antibody produced by the patient after the administration of the xenotypic antibody relative to the level of anti-idiotype antibody produced by the patient prior to the administration of the xenotypic antibody is indicative of a favorable diagnosis of efficacy.

13. The method of claim 12, wherein the patient is human.

14. The method of claim 12, wherein the patient is suffering from a disease selected from the group consisting of cancer, inflammatory disease, bacterial infection, parasitic infection, and viral infection.

15. The method of claim 12, wherein the xenotypic antibody is selected from the an antibody that specifically binds to an antigen, wherein the antigen is selected from the group consisting of CA125, MUC-1, and prostate specific antigen.

16. The method of claim 12, wherein the level of antibody produced by the patient is at least 50 ng/mL blood.

17. A method for diagnosing the efficacy of xenotypic antibody-mediated immunotherapy comprising measuring the level of an antibody produced by a patient that specifically binds to a target antigen of a xenotypic antibody after administration of a xenotypic antibody to the patient, wherein an increase in the level of the antibody produced by the patient after the administration of the xenotypic antibody relative to the level of antibody produced by the patient prior to the administration of the xenotypic antibody is indicative of a favorable diagnosis of efficacy.

18. The method of claim 17, wherein the antibody produced by the patient competes with the xenotypic antibody for its binding site on the target antigen.

19. The method of claim 17, wherein the level of antibody produced by the patient after administration of the xenotypic antibody is increased by more than three-fold relative to the level present in the patient prior to the administration of the xenotypic antibody.

20. The method of claim 17, wherein the patient is human.

21. The method of claim 17, wherein the xenotypic antibody is selected from the an antibody that specifically binds to an antigen, wherein the antigen is selected from the group consisting of CA125, MUC-1, and prostate specific antigen.

22. A method for diagnosing the efficacy of xenotypic antibody-mediated immunotherapy comprising measuring the level of a T cell response produced by a patient to a target antigen of the xenotypic antibody after administration of a xenotypic antibody to the patient, wherein an increase in the level of the T cell response produced by the patient after the administration of the xenotypic antibody relative to the level of the T cell response produced by the patient prior to the administration of the xenotypic antibody is indicative of a favorable diagnosis of efficacy.

23. The method of claim 22, wherein the T cell response is a T helper cell response.

24. The method of claim 22, wherein the T helper cell response is a cytotoxic T cell response.

25. The method of claim 22, wherein the patient is human.